

MSc Template-Chemistry
(Y22 Onward)

Year I				Year II			
Semester I		Semester II		Semester III		Semester IV	
Courses	L-T-P-D (C)	Courses	L-T-P-D (C)	Courses	L-T-P-D (C)	Courses	L-T-P-D (C)
CHM401A	3-0-0-0 (9)	CHM402A	3-0-0-0 (9)	CHM611A	3-0-0-0 (9)	CHM700A	0-0-0-27 (27)
CHM321A	3-0-0-0 (9)	CHM322A	3-0-0-0 (9)	CHM621A	3-0-0-0 (9)	DE-3	3-0-0-0 (9)
CHM345A	3-0-0-0 (9)	CHM342A	3-0-0-0 (9)	CHM631A	3-0-0-0 (9)	DE-4	3-0-0-0 (9)
CHM503A	0-0-6-0 (6)	CHM443A	0-0-6-0 (6)	CHM699A/ 2 x DE	0-0-0-18 (18)	OE-2	3-0-0-0 (9)
CHM423A	0-0-6-0 (6)	DE-1	3-0-0-0 (9)	DE-2	3-0-0-0 (9)		
CHM521A	2-0-0-0 (6)	OE-1	3-0-0-0 (9)				
CHM361A	2-0-0-0 (6)						
Total credits: 51		Total credits: 51		Total credits: 54		Total credits: 54	

Credit distribution

	Credits as per new template
Department core (DC)	138
Department elective (DE)	54
Open elective (OE)	18
Total credit	210

**List of compulsory courses (DC) as per the new MSc template
(in the increasing order of semesters)**

CHM401A, 3-0-0-0 (9)	Organic Chemistry I
CHM321A, 3-0-0-0 (9)	Physical Chemistry I
CHM345A, 3-0-0-0 (9)	Inorganic Chemistry I
CHM503A, 0-0-6-0 (6)	Organic Preparations Lab
CHM423A, 0-0-6-0 (6)	Physical Chemistry Laboratory
CHM521A, 2-0-0-0 (6)	Mathematics for Chemistry
CHM361A, 2-0-0-0 (6)	Chemistry Communication Skills
CHM402A, 3-0-0-0 (9)	Organic Chemistry II
CHM322A, 3-0-0-0 (9)	Physical Chemistry II
CHM342A, 3-0-0-0 (9)	Inorganic Chemistry II
CHM443A, 0-0-6-0 (6)	Inorganic Chemistry Laboratory
CHM611A, 3-0-0-0 (9)	Physical Organic Chemistry
CHM621A, 3-0-0-0 (9)	Chemical Binding
CHM631A, 3-0-0-0 (9)	Application of Modern Instrumental Methods
CHM699A, 0-0-0-18 (18)	MSc Project (3 rd Semester) <i>Not compulsory</i>
CHM700A, 0-0-0-27 (27)	MSc Project (4 th Semester)

List of all DE courses

CHM 481A: Biosystems
 CHM 600A: Mathematics for Chemistry
 CHM 602A: Advanced Organic Chemistry
 CHM 609A: Principles of Organic Chemistry
 CHM 611A: Physical Organic Chemistry
 CHM 612A: Frontiers in Organic Chemistry
 CHM 614A: Organic Photochemistry
 CHM 616A: Chemistry of Organometallic Compounds
 CHM 621A: Chemical Binding
 CHM 622A: Chemical Kinetics
 CHM 626A: Solid State Chemistry
 CHM 627A: Methods of Electronic Structure Calculation
 CHM 629A: Principles of Physical Chemistry
 CHM 631A: Application of Modern Instrumental Methods
 CHM 632A: Enzyme; reactions mechanism and kinetics
 CHM 636A: Physical photochemistry
 CHM 637A: Molecular Spectroscopy
 CHM 645A: Orbital Interactions in Chemistry
 CHM 646A: Bio-inorganic Chemistry I
 CHM 647A: Macrocycles, Rings and Polymers
 CHM 648A: Chemistry of Metal Carbon Bond: Structure, Reactivity and Applications
 CHM 649A: Principles of Inorganic Chemistry
 CHM 650A: Statistical Mechanics and its applications to Chemistry
 CHM 651A: Crystal and Molecular Structure Determination
 CHM 654A: Supramolecular Chemistry
 CHM 656A: Organic Structure Determination by Spectroscopic Techniques

CHM 661A: Computational and Electronic Structure of Solids
CHM 662A: Chemistry of Natural Products
CHM 663A: Electron, Proton and Hydrides
CHM 664A: Modern Physical Methods in Chemistry
CHM 667A: Quantum Dynamics in Chemistry
CHM 668A: Advanced Main Group Chemistry
CHM 679A: Molecular Reaction Dynamics
CHM 681A: Basic Biological Chemistry
CHM 682A: Modern Chemistry and Applications of Lanthanides
CHM 683A: Surfaces, Interfaces, Thin Films and Related Analytical Techniques
CHM 684A: Computer Programming in Chemistry
CHM 685A: Molecule Radiation Interactions
CHM 689A: Nuclear Magnetic Resonance
CHM 691A: Frontiers in Inorganic Chemistry
CHM 692A: Special Topics in Physical Chemistry
CHM 693A: Chemical Synthetic Strategy of Advanced Materials
CHM 695A: Molecular Modeling in Chemistry
CHM 696A: Quantum Computing
CHM 697A: Lasers in Chemistry and Biology
CHM 698A: Chemistry of Drug Design and Metabolism